DOCUMENT RESUME

ED 128 837 CS 202 953

AUTHOR Cronnell, Bruce
TITLE What Spelling Books Don't Tell You about English Spelling.
PUB DATE 75
NOTE 11p.; Paper presented at the Annual Meeting of the National Council of Teachers of English (65th, San Diego, California, November 1975)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Elementary Education; *English Instruction; *Language Instruction; Orthographic Symbols; *Spelling; *Spelling Instruction

ABSTRACT

This paper describes some of the regularities of English spelling that are generally ignored in spelling books. Specifically, topics of discussion include simple sounds with complex, but predictable, spellings; infrequent, specialized spellings; and homophonous final syllables. The use of these spelling rules can help elementary school students correctly spell more words with less difficulty. (KS)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED128837

Paper to be presented at
NCTE Convention,
San Diego, November 27, 1975

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

WHAT SPELLING BOOKS DON'T TELL YOU ABOUT ENGLISH SPELLING

Bruce Cronnell
SWRL Educational Research and Development
4665 Lampson Avenue
Los Alamitos, CA 90720

During the past decade or so, several research studies have appeared telling us that English spelling is regular--that the spelling of English words can be predicted on the basis of pronunciation (e.g., Hanna, Hanna, Hodges, & Rudorf, 1966; Venezky, 1967, 1970; Cronnell, 1971a). Some of this research has been translated into classroom materials for teaching spelling.

For instance, most students--and teachers--know the simple vowel and consonant spellings. For example, the short vowel sounds /a/, /e/, /i/, /o/, and /u/ are spelled with the letters a, e, i, o, and u. Most consonant sounds are generally spelled with one or more letters which have little variation; e.g., /b/ spelled b, /ch/ spelled ch.

Moreover, most students--and teachers--know that the long vowel sounds have a much greater variety of spellings. For example, long-e (/ē/) may be spelled ee, ea, ie, ei, y, i, ie, ey, and e.

Many students--and teachers--know that there are positional constraints on spelling. For example, /k/ is spelled c before a, o, u, or another consonant.

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Bruce Cronnell
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

CS 202 963

However, on the basis of more thorough analysis we can determine many other predictable spellings in English (Russell, 1975). While they may be more complex, they can be learned and then used to spell more accurately. This paper will discuss some of these spellings that don't usually get into spelling books (cf., Cronnell, 1971b).

Simple Sounds with Complex, but Predictable, Spellings

For the most part, consonant sounds can be spelled rather easily because there generally is a one-to-one correspondence between a consonant sound and its spelling. However, there are some areas where more complex spellings occur.

As noted above, there are positional constraints on spelling. Some consonant sounds have different spellings at the end of a word after a short vowel:

/f/	- ff	(fast - staff)
/l/	- ll	(lip - pill)
/s/	- ss	(set - Tess)
/ch/	- tch	(chat - hatch)
/j/	- dge	(jam - Madge)
/k/	- ck	(cap - pack)

The spelling rule is that certain consonants double at the end of a word after a short vowel. For the last three consonants, the "doubled" form is a bit unusual, but it is the same form found in two-syllable words after short vowels; e.g., kitchen, midget, buckle.

Two consonant sounds have specific spellings at the end of a word after a long vowel or after a consonant:

/j/	- ge	(cage, large)
/k/	- k	(cake, lark)

Now things are becoming a bit more complex. However, the spellings are still predictable. This is a summary of the spellings of /k/:

before a, o, u: c (cat, cot, cut)
before a consonant: c (crack, clock)
before e, i, y: k (keep, king, sky)
after a long vowel sound: k (cake, leak)
after a two-letter vowel spelling: k (book)
after a consonant: k (lark, ask, sink)
before /w/: q (queen)

This last spelling may be restated as /kw/ is spelled qu, since /w/ is rarely spelled u except after /k/ and since q is always followed by u. Some people might object that, while all these spelling rules are accurate, they are too complex to teach to students. Of course, teaching the whole set of rules at once would be too much to handle, but introduced over a matter of months or over a year or two, second and third grade children can learn these spellings and use them accurately. Our tryout experience with the spelling component of the SWRL Communication Skills Programs for the Elementary Schools indicates that students do learn these spellings and that they do use them correctly in spelling new words.*

---

*Unfortunately most predictable English spellings have exceptions. In the case of /k/, there are, for example, several words--mostly borrowed from other languages--where the wrong spelling occurs; e.g., k before a as in skate, kangaroo. Again, tryout experience has indicated that such words can be explicitly taught as irregular and that students can learn to treat them as exceptions. It might also be noted that names of people and of commercial products frequently do not follow spelling rules; in the case of the latter, this promotes distinctiveness and memorability; cf. Cronnell, 1971c.

Long-vowel spellings are frequently difficult because of the variety of possibilities. However, there are some rules that can help students reduce the number of options. For example, in one-syllable words, final long-e (/ē/) can be spelled ee or ea (see-sea). (It can also be spelled e, but only in a limited set of words: be, he, me, she, we--and ye.) In two-syllable words final /ē/ can be spelled y or ey (candy, turkey). However, final /ē/ is never ei. Before st and ch the spelling is generally ea (least, teach), although there are a few exceptions. Before v, f, and ld, /ē/ is generally spelled ie (grieve, grief, field). The ei spelling occurs primarily in the root ceive (receive, deceive, conceive, perceive). The i spelling is found in words borrowed from other languages (patio, police). The suffix /ē/ is generally spelled y (lucky), much less frequently ie (movie); when referring to a person, it is spelled ee (employee). Sequential presentation of this information over a period of two to three years can permit students to have fewer spelling problems because they can predict the possible spellings to use and then can check them in a dictionary. Knowledge of specific spelling rules also makes irregular spellings more obvious, so that they can be learned as exceptions.

Another area where long-vowel spellings and other two-letter vowel spellings are predictable is with i-y and u-w alternations, as in ai-ay and ou-ow. The spellings with i and u occur before consonants; the spellings with y and w occur finally and before vowels. The w spellings also occur before final n and final l.

/oi/	coil	coy	foyer			
/ā/	hail	hay	mayor			
/ā/	rein	they				
/ô/ or /o/	haunt	law		lawn	bawl	
/yū/ or /ū/	feud	few	jewel	hewn		
/ou/	cloud	cow	flower	clown	howl	
/ō/		grow		grown		

For the pairs oi-oy and ou-ow, this information is sufficient to spell nearly all the words with the /oi/ and /ou/ sounds. For the other sounds, these rules are not sufficient, but they do limit the possible spellings (e.g., a word ending in /ān/ can be spelled ain, ein, or ane, but not ayn or eyn).

Infrequent, Specialized Spellings

Several spellings occur in relatively few words (often 10-20), but they can be easily predicted. Their low frequency may be one reason that they are not commonly taught, or it may be that textbook writers consider them too esoteric, or it may simply be that writers have never heard of the rules. Nonetheless, the rules do exist, are teachable and learnable, and do help students spell common words.

Three vowel rules depend on the presence of a preceding /w/ sound or w letter.

1. /ėr/ is spelled or after the letter w; e.g., work, worm, worth. (The one exception is were, which is also peculiar because of the final e.)

2. /ôr/ is spelled ar after the sound /w/; e.g., warm, quart, wharf. (The exceptions are wore-worn and swore-sworn, which are forms of wear and swear and are thus related in spelling to the sets tear-tore-torn and bear-bore-born.)

3. /o/ (and/or /ô/) is spelled a after /w/; e.g., wand, squat.

Note that the /w/ sound may be spelled w, wh (which spells /hw/ in some dialects--but the /w/ sound immediately precedes the vowel), or u as part of qu.

Students often are confused about whether to double medial consonants. While they are never doubled after long vowels, there is some variation following short vowels (e.g., city-kitty). There are two nearly invariant rules that can be helpful here.

1. Doubled consonants do not usually occur before ic, id, in, ish, it; e.g., magic, rapid, satin, finish, habit. (However, when the ish is a suffix, this restriction does not hold; e.g., reddish.)

2. The letter v almost never occurs in a doubled form; e.g., river. The three known exceptions (navvy, savvy, divvy, flivver) are low-frequency, slang words. (The prohibition against doubled v is related to legibility: vv looks too much like w.)

Besides not doubling, v has another unusual characteristic: it never occurs finally; rather ve is used; e.g., sleeve, valve. (The exceptions again are more casual words, generally shortened forms; e.g., rev, Bev, shiv.) Note that by this rule, the words give, have, live (/liv/) are not irregularly spelled; e.g., in give, /g/ is spelled g, /i/ is spelled i, and final /v/ is spelled ve.

These and other spelling rules can be learned by students (as our tryout results indicate) and can be used in the spelling of new words. While each rule may affect relatively few words, together these rules can help children spell many words correctly.

Homophonous Final Syllables

Final unstressed syllables (sometimes suffixes) are frequently homophonous: one pronunciation can be spelled in two or more ways. These syllables contain the unstressed (unaccented) vowel /ə/ or /ɪ/ and thus there are many options for the vowel spelling. However, some rules narrow these choices and make spelling easier.

1. Final /əl/ has six possible spellings: el, le, al, il, ile, and ol. While the last three are rather infrequent and should be learned as exceptions, some help can be provided for sorting out the first three.

   (a) The suffix /əl/ is generally spelled al; e.g., personal.

   (b) When /əl/ follows m, n, r, w, sh, tch, dg, or v, it is generally spelled el; e.g., camel, channel, barrel, towel, bushel, satchel, cudgel, travel.

   (c) When /əl/ follows other letters, it is generally spelled le; e.g., bubble, paddle, waffle, giggle, ankle, staple, cattle, puzzle.

2. Final /ər/ has five basic spellings: er, or, ar, ure, and ior.

   Each of these spellings has some degree of predictability.

   (a) The adjectival suffix /ər/ (i.e., the suffix that creates adjectives from nouns) is spelled ar; e.g., polar. (Note that when this suffix is added to words ending in le, the le changes to ul; e.g., single-singular.)

   (b) The comparative suffix (meaning "more") is always spelled er; e.g., easier.

   (c) The agentive suffix (meaning someone or something that does something) is spelled either er or or. /ər/ is always spelled or after ct, at(e), and it; e.g., actor, elevator, editor. The other agentive occurrences of or are unpredictable and should be treated as exceptions. When the root word does not end with ct, ate, it and when the suffixed form is not one of these exceptions, the spelling is er; this is by far the majority of words.

   (d) When final /ər/ is preceded by /y/, it is generally spelled or and the /y/ is spelled i; e.g., senior, behavior.

   (e) When final /ər/ is not a suffix and is preceded by /ch/, it is generally spelled ure (and the /ch/ is spelled t); e.g., feature. (When /ər/ preceded by /ch/ is a suffix, the regular er and ch spellings are used; e.g., teacher.) When final /ər/ is not a suffix and is preceded by /zh/, it is generally spelled ure (and the /zh/ is spelled s); e.g., treasure.

(f) When /ər/ is not a suffix, the er spelling is most common, except after ct and rr, when or is found; e.g., doctor, terror.

3. The suffix /ən/ has four spellings: en, an, ian, ion; each has predictable characteristics.

(a) When /ən/ is a causative suffix (meaning to cause something to become something) or past participle suffix, it is spelled en; e.g., harden, eaten.

(b) When /ən/ is a suffix referring to people, it is spelled an or ian (the latter after /sh/ spelled c); e.g., American, magician.

(c) After /sh/, /ch/, /zh/, the /ən/ syllable (whether a suffix or not) is spelled ion; e.g., vacation, question, vision. (Note that the preceding /ch/ is spelled t; e.g., suggestion. The preceding /zh/ is spelled s; e.g., division. The preceding /sh/ is most commonly spelled t; e.g., nation; this is always true when the root word ends with t(e); e.g., action. When the root word ends with ss, the /sh/ is spelled ss; e.g., discussion. The ss spelling for /sh/ before ion also occurs in mission and other words derived from the Latin root mit; e.g., permit-permission.)

(d) After /y/, the /ən/ syllable (whether a suffix or not) is spelled on and the /y/ is spelled i; e.g., stallion, union.

Other cases of /ən/ when not a suffix may be spelled en, ain, on, in, and an; these spellings are not predictable.

4. The final unstressed syllable /ist/ has two spellings; est and ist. The superlative suffix (meaning "most") is always spelled est; e.g., fastest. When the meaning is agentive (someone who does something), the spelling is ist; chemist, soloist. All other occurrences of /ist/ (none of which are suffixes) are spelled est; e.g., forest.

This section has covered only a few of the unstressed final syllables in English that have homphonous spellings. Many of the others are subject to similar constraints on their spelling. Knowledge of these options and constraints can help students spell more easily and more accurately.

Conclusion

This paper has described some of the regularities of English spelling that are generally ignored in spelling books. A complete description would be much longer, but would also cover a greater proportion of English words. Tryout experience has indicated that elementary school students can learn such spelling rules and can apply them in the spelling of new words. The use of these rules can help students correctly spell more words with less difficulty.

REFERENCES

Cronnell, B. Annotated spelling-to-sound correspondence rules. Technical Report No. 32, 1971, SWRL Educational Research and Development, Los Alamitos, California. (a)

Cronnell, B. Beginning spelling: A linguistic review of six spelling series. Technical Report No. 35, 1971, SWRL, Educational Research and Development, Los Alamitos, California. (b)

Cronnell, B. Spelling-to-sound correspondences for reading vs. sound-to-spelling correspondences for writing. Professional Paper No. 12, 1971. SWRL Educational Research and Development, Los Alamitos, California. (c)

Hanna, P. R., Hanna, J. S., Hodges, R. E., & Rudorf, E. H. Phoneme-grapheme correspondences as cues to spelling improvement. Washington, D. C.: U. S. Government Printing Office, 1966.

Russell, P. An outline of English spelling. Technical Report No. 54, 1975, SWRL Educational Research and Development, Los Alamitos, California.

Venezky, R. L. English orthography: Its graphical structure and its relation to sound. Reading Research Quarterly, 1967, 2, 75-106.

Venezky, R. L. The structure of English orthography. The Hague: Mouton & Co., 1970.